OBJECTIVE FORCE SYSTEMS

LTG Kevin P. Byrnes

Fielding Capabilities For Tomorrow's Requirements

Introduction

The Army has embarked on a revolutionary path of change to ensure that the best Army in the world today remains fully prepared for the strategic challenges and operational demands of tomorrow. Transformation is the watchword for this path, and the Objective Force is the description for the Army of the future. Our enduring goal and challenge is to sustain the dominant qualitative edge of the Army over all potential adversaries.

Transformation to the Objective Force is conceptually about a revolution in the way the Army fights. It requires a science and technology (S&T) effort that focuses on yielding a knowledge-based operational capability, while increasing strategic deployability and operational and tactical mobility.

A Complex Change

Army transformation is about more than just procurement of equipment. It also integrates the advancements in Doctrine, Training, Leader Development, Organization, Materiel and Soldiers (DTLOMS); installations; and business processes. This new way of fighting will become a reality only through fielding of equipment organized into effective systems. Ultimately, these systems must be integrated into units and manned by trained soldiers, who remain the Army's enduring and most important "system." Furthermore, for transformation to succeed, it will be absolutely essential to identify, develop, and incorporate new technologies into effective systems. When it comes to Army systems, the Office of the Deputy Chief of Staff for Programs has the programmatic lead, including future systems for the Objective Force.

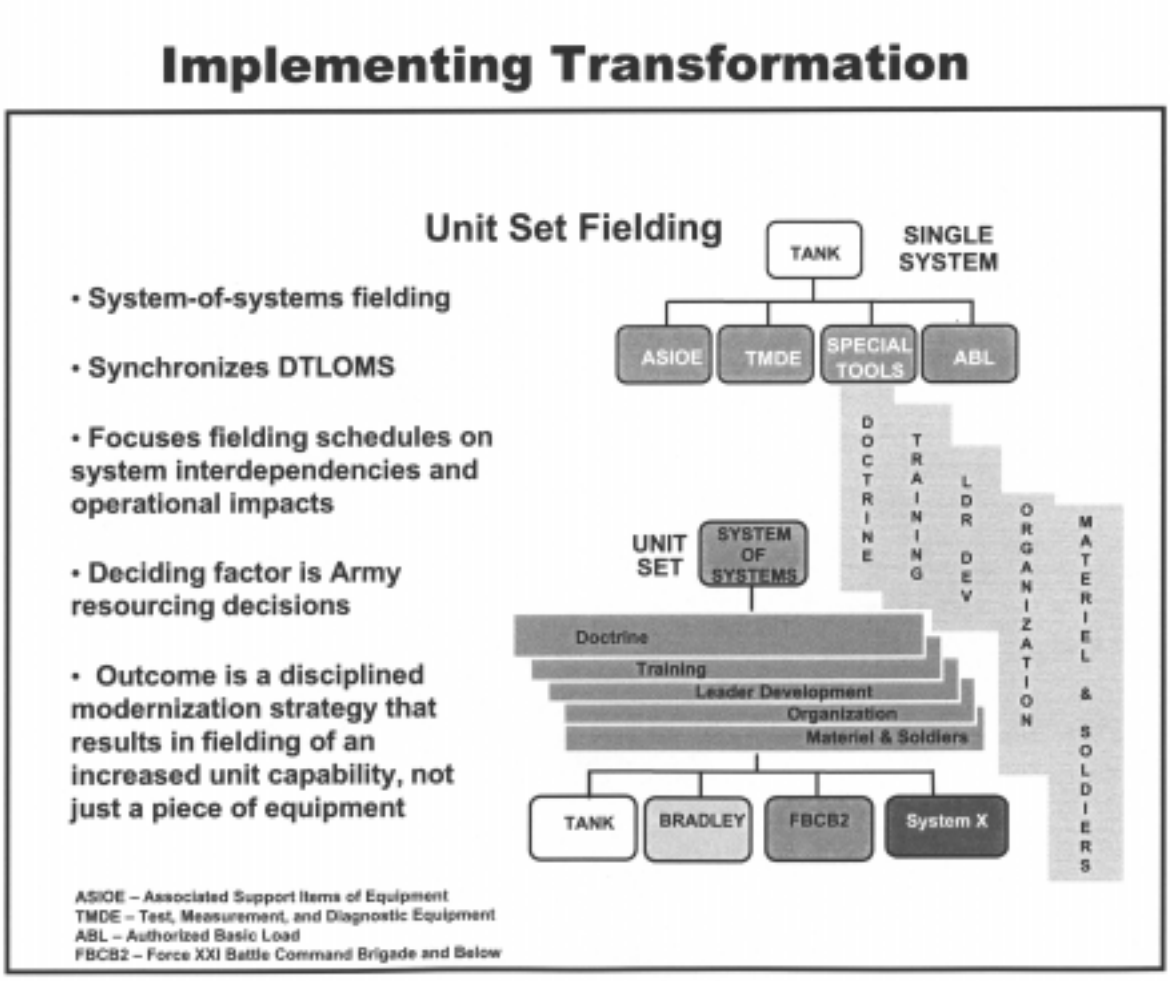
Role Of Force Development

During transformation, the role of the Army staff's Force Development Directorate remains much the same as it was in past decades—converting requirements into capabilities that can be used by soldiers and units. The end result will be the development of systems that can be implemented by technologically feasible and fiscally affordable programs. To achieve the ambitious goals of fielding a more responsive and capable force in the future—the Objective Force—the Army must find ways to harness the revolutionary breakthroughs in S&T and convert them into viable systems and, ultimately, into programs that comprise future years' Army budgets.

Transformation Timeline

Transformation is a 30-year process that depends on technological developments, funding levels, and unit availability. The desired characteristics of the Objective Force described in the Army vision are responsiveness, deployability, agility, versatility, lethality, survivability, and sustainability. The materiel means of achieving these characteristics are still being developed, and will be for years to come.

Transformation will span decades, not just years. Thus, the process of developing and fielding systems for the Objective Force will be ongoing and will include current systems, projected systems, and ones that are now only in the conceptual phase. Some systems that exist in the Army today, the Javelin anti-armor weapon system for example, are relatively modern in their capability and technological advancement. As such, these systems will be part of the Army inventory for many years—certainly into the period when Objective Force units are coming into existence—2010 and beyond. Other systems, such as the Comanche helicopter and Crusader advanced field artillery system, are entering the force within the next 5 years or so, and will likewise be integral components of the future force for decades to come. Finally, other systems such as the Future Combat Systems (FCS)—the "system-of-systems" that comprise the foundation of the Objective Force—are in the early stages of S&T exploration and may not actually be converted into deployable systems until the end of this decade or beyond. Managing



and balancing all of these systems—present, next-generation, and future—represents a major challenge to successful transformation of the Army and a particular responsibility of the Army's force development process.

Materiel Solutions

As mentioned earlier, the Army is not simply about individual platforms or pieces of equipment, but rather about systems that comprise all elements—DTLOMS—harmonized together in functional organizations or units. Materiel solutions, however, in the form of well-conceived, professionally developed, acquired, and tested hardware systems, remain a decisive element of the Army's future effectiveness.

The harnessing of new technologies within these materiel systems is what gives such exciting promise to the Army's ongoing transformation efforts. In fact, it is the key to our future! As such, it is also the integral part of the Army's research, development, and acquisition budget, which amounts to $19.1 billion for FY02. Of that amount, more than 60 percent will be devoted to investing in Objective Force systems, including those systems that are available now and will be retained for continued use or systems that will be fielded in the future.

The seedbed for innovative technological advances in these systems, especially the ones yet to be developed, can be found in S&T efforts that are exploring revolutionary technologies. Of these investments ($8 billion between now and FY07), 96 percent are being devoted to developing technologies for Objective Force systems.

Objective Force Systems

Among the Army's Objective Force systems, the development of FCS is the central materiel focus, with 37 percent of S&T funding being used to find and develop the new technologies needed for this system-of-systems. The Army is also seeking to simultaneously mature and develop technologies for other systems that will be essential to achieve full-spectrum dominance, which is the intended hallmark of the Army of the future.

One of the more prominent efforts is in the area of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR), which has the overarching goal of improving comprehensive situational awareness for the future Army. Advanced sensors, intelligence and electronic warfare systems and techniques, and specialized electronics and computer systems are a few of the areas offering great promise. Examples of other promising areas include rotorcraft technology, technologies to enhance the future infantry soldier, technologies to improve deployability and reduce logistics demand, advanced training tools and methods, simulation tools, and technologies to improve survivability and lethality.

Achieving a decisive edge in the all-encompassing area of information technology is a broad theme of the Army's technological pursuits, but by no means is it the only one. Another goal is the imperative to significantly improve strategic responsiveness. This will require revolutionary advances in numerous technology areas to produce not only lighter and more easily sustainable forces, but also forces that simultaneously possess even greater lethality and survivability than those of today's Army. These challenges are formidable, but are also well within the realm of technological potential.

A specific example of technological potential is the Common Missile, currently under development for use as a future Objective Force munition. This particular acquisition initiative aims to develop and field a common missile for use in multiple ground and air platforms, from current to future systems, including both the Comanche and possibly the FCS. The goal of this program is to tap into new technologies that can yield increased capability and greater operational flexibility while simultaneously reducing the logistics burden and ownership costs to the entire force. This type of innovative approach is what the Army needs to enable successful transformation through technological advances and concurrently keep costs and complexity within appropriate bounds.

Combat-Capable Units

The Army plans to use the Unit Set Fielding (USF) concept to implement the Army vision of becoming strategically responsive and dominant across the full spectrum of operations. USF describes both a strategy and process involving the assembly and issuance of a set of several individual, interactive systems to a particular unit. Related to this process is the concurrent fielding of all required support, such as ranges, training aids, ammunition, spare parts, and personnel.

Collectively, these processes focus on providing the greatest capability, not necessarily the largest number of individual systems, by synchronizing fielding plans and deconflicting demands on soldiers. Overall, this "balanced" approach of fielding systems-of-systems rather than simply individual pieces of equipment means that the Army will get far greater value for its investment throughout the transformation process.

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Challenges

The Army's goal of developing and fielding an Objective Force to realize the full potential of revolutionary new technologies is well underway. Many systems that will be part of this force are being introduced into the Army in synchronized sets of equipment. Others, such as the FCS, will be introduced by the end of this decade. Transformation is indeed a process or path, not simply a destination. As such, it will require a sustained and focused effort to yield the dramatic improvements envisioned by tapping into S&T breakthroughs in the 21st century. Objective Force systems will cover a broad spectrum of capabilities, functions, and specialties. While the FCS is the most visible and promising example of the future Army, other systems are also being developed and will comprise a larger part of the total Army effort. Ultimately, the synergy of all Objective Force systems will yield the full potential of a transformed Army, which is another reason why the USF process is so critical to improved capabilities.

Conclusion

Sustained S&T efforts coupled with efficient processes to field systems once they are developed are indispensable for the promises of transformation to become future realities. The Army has already begun to transform, and continued support will be required to preserve the momentum already established.

LTG KEVIN P. BYRNES is the Army Deputy Chief of Staff for Programs. He has a B.A. degree in economics and business administration from Park College and an M.A. degree in management from Webster University.